

Appl. No. 10/526,427
Amdt. Dated June 23, 2008
Reply to Office Action of April 11, 2008

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Customer No.: 26021

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended): A ferrite material comprising a sintered body comprising as main constituents, 62 to 68 mol % of Fe_2O_3 , 15 42 to 20 mol % of ZnO , 1.5 to 5 mol % of NiO , and the balance being substantially MnO ; and

the saturation magnetic flux density thereof at 100°C is 450 mT or more (magnetic field for measurement: 1194 A/m), and the minimum core loss value thereof is 1200 kW/m³ or less (measurement conditions: 100 kHz, 200 mT), wherein:

said sintered body has a mean grain size of 10 to 30 μm .

2.-4. (Cancelled).

5. (Previously presented): The ferrite material according to claim 1, wherein: said ferrite material comprises, as additives, 250 ppm or less (not inclusive of 0) of Si in terms of SiO_2 and 2500 ppm or less (not inclusive of 0) of Ca in terms of CaCO_3 .

6. (Cancelled).

7. (Previously presented): The ferrite material according to claim 5, wherein: the weight ratio between said content of SiO_2 and said content of CaCO_3 (SiO_2 content/ CaCO_3 content) is 0.04 to 0.25.

8. (Currently amended): The ferrite material according to claim 1, wherein: said ferrite material comprises, as additives, one or more selected from the group consisting of Nb_2O_5 : 400 ppm or less (not inclusive of 0), ZrO_2 : 1000 ppm or less (not inclusive of 0), Ta_2O_5 : 1000 ppm or less (not inclusive of 0), In_2O_3 In_2O_5 : 1000 ppm or less (not inclusive of 0), and Ga_2O_3 Ga_2O_5 : 1000 ppm or less (not inclusive of 0).

9. (Previously presented): The ferrite material according to claim 1, wherein:
said ferrite material comprises, as additives, one or both of SnO_2 : 10000 ppm or less (not inclusive of 0) and TiO_2 : 10000 ppm or less (not inclusive of 0).
10. (Previously presented): The ferrite material according to claim 1, wherein:
said ferrite material comprises, as additives, one or more selected from the group consisting of a P compound: 35 ppm or less (not inclusive of 0) in terms of P, MoO_3 : 1000 ppm or less (not inclusive of 0), V_2O_5 : 1000 ppm or less (not inclusive of 0), GeO_2 : 1000 ppm or less (not inclusive of 0), Bi_2O_3 : 1000 ppm or less (not inclusive of 0), and Sb_2O_3 : 3000 ppm or less (not inclusive of 0).
11. (Previously presented): The ferrite material according to claim 1, wherein:
the bottom temperature at which the core loss thereof exhibits the minimum value falls within a range between 60 and 130°C.
12. (Previously presented): The ferrite material according to claim 1, wherein:
the saturation magnetic flux density thereof at 100°C is 480 mT or more (magnetic field for measurement: 1194 A/m).
13. (Original): The ferrite material according to claim 12, wherein:
the initial permeability thereof at room temperature is 700 or more.
14. (Currently amended): The ferrite material according to claim 1, wherein:
said sintered body has a relative density of 93% or more ~~and a mean grain size of 5 to 30 μm .~~
15. (Previously presented): The ferrite material according to claim 1, wherein:
the saturation magnetic flux density thereof at 100°C is 480 mT or more (magnetic field for measurement: 1194 A/m) and the minimum core loss value thereof is 1100 kW/m³ or less (measurement conditions: 100 kHz, 200 mT).

16. (Previously presented): The ferrite material according to claim 1, wherein:
the saturation magnetic flux density thereof at 100°C is 500 mT or more
(magnetic field for measurement: 1194 A/m), the minimum core loss value thereof is
1000 kW/m³ or less (measurement conditions: 100 kHz, 200 mT), the bottom
temperature at which the core loss thereof exhibits the minimum value is from 80 to
120°C, and the initial permeability thereof at room temperature is 800 or more.

17. (Cancelled):

18. (Previously presented): The ferrite material according to claim 1, wherein:
said sintered body has a mean grain size of 10 to 20 μm.